BRIEF REPORT

Education in Cosmetic Procedural Dermatology: Resident Experiences and Perceptions

by COLTON B NIELSON, MD; JENNIFER N HARB, MD; and KIRAN MOTAPARTHI, MD

Drs. Nielson, Harb, and Motaparthi are with the Department of Dermatology at the University of Florida College of Medicine in Gainesville, Florida.

J Clin Aesthet Dermatol. 2019;12(8):E70–E72

ABSTRACT

Background: Currently, dermatology residency training requires minimal experience in cosmetic procedures which can be achieved through observation. **Objective:** To assess education in and expectations for cosmetic procedures during dermatology residency. **Materials and Methods:** A 20-question survey was electronically distributed to 138 Accreditation Council for Graduate Medical Education–accredited dermatology residency training programs. **Results:** One hundred fifty surveys were returned. While 74 percent of the responding residents reported plans to integrate cosmetic procedures into their future practice, only 36 percent felt adequately trained. Forty-eight percent of residents received one or less didactic lectures annually. Over 95 percent of residents felt that a more formal curriculum in cosmetic procedures would benefit residency education. **Conclusion:** There appears to be insufficient didactic and clinical training in cosmetic procedures during dermatology residency to meet resident expectations and future practice habits.

KEYWORDS: Cosmetic dermatology, education, procedural dermatology, residency training

More than 12 million dermatologic procedures were performed in 2017, up from 7.8 million in 2012.[1] Eight million of these procedures were cosmetic, with soft tissue filler and laser treatments increasing by 79 and 63 percent, respectively.[1] However, despite the growing demand for cosmetic procedures, it is unclear whether dermatology residents perceive their training as adequate in this subspecialty. Additionally, while structured didactic and clinical instruction in dermatopathology and noncosmetic procedural dermatology are common, less is known about the incorporation of procedural cosmetic dermatology into residency curricula.[2] We sought to examine current educational exposure to cosmetic procedures among dermatology residents and to gauge their interest in additional training.

METHODS

Following Institutional Review Board approval, a 20-question survey was electronically distributed to 138 Accreditation Council for Graduate Medical Education (ACGME)–accredited dermatology residency training programs via the Association of Professors of Dermatology (APD) listserv. We collected anonymous responses from 150 of an estimated 450 dermatology residents (33% response rate) between August 1, 2018, and October 1, 2018.

RESULTS

While 74 percent of the responding residents reported planning to integrate cosmetic procedures into their future practices, only 36 percent felt they currently receive adequate preparatory training. These findings are consistent with those of previous surveys by Group et al[3] and Champlain et al,[4] which reported rates of 75 percent and 99 percent, respectively, for resident interest in performing cosmetic procedures after residency. In an attempt to identify an underlying cause for the perceived inadequacy, responses relating to the frequency of formal didactics and clinical instruction were stratified. Roughly 37 percent of residents receive only one formal lecture per year on cosmetic procedures, and 11 percent of residents receive less frequent didactic instruction. Given that 26 percent of respondents were Postgraduate Year (PGY)-2 dermatology residents with three months or less of residency experience, responses by PGY-3 (42%) and PGY-4 residents (48%) were reviewed separately. Twenty-five percent of PGY-3 residents and 10 percent of PGY-4 residents had not performed soft tissue filler procedures. Thirty-eight percent and 19 percent of PGY-3 and PGY-4 residents, respectively, had not performed chemical peels.

With 58 percent of residents reporting that their expectations for residency training in

FUNDING: No funding was provided for this study.

DISCLOSURES: The authors have no conflicts of interest relevant to the content of this article. An abstract reflecting this work was presented previously at the Dermatology Teacher Exchange Group at the Annual Meeting of the Association of Professors of Dermatology on October 5th, 2018.

CORRESPONDENCE: Kiran Motaparthi, MD; Email: kmotaparthi@dermatology.med.ufl.edu

TABLE 1. Summary of survey participants (n=150)

DEMOGRAPHIC	NUMBER (%)
Sex	
Male	52 (35)
Female	99 (66)
Training year	
PGY-2	40 (26)
PGY-3	63 (42)
PGY-4	48 (32)
Geographic region	
West	28 (19)
Midwest	32 (21)
Northeast	35 (23)
South	56 (37)

PGY: postgraduate year

TABLE 2. Results of dermatology resident survey (n=150)

SURVEY ITEM	RESPONSE
Do you receive adequate training in cosmetic procedures* at your residency program currently?	Yes (36)
Do you plan to perform cosmetic procedures and integrate cosmetic procedures* in your practice after residency?	Yes (74)
Would a formal curriculum (including didactic and clinical experience) in cosmetic procedures* benefit residency education, similar to dermatopathology and dermatologic surgery?	Agree (95)
How often do you have attending-led didactic lectures focused on cosmetic procedures*?	Biannual or less (48)
How often does your program have cosmetic clinics in which patients are scheduled with an attending for cosmetic procedures*?	Biannual or less (27)
How often do you have resident-run cosmetic clinics in which cosmetic procedures* are offered free of charge or at a discounted cost?	Biannual or less (36)
Which of the following procedures** have you personally performed in residency training?	Chemical peels (45) Soft tissue filler (62) Laser surgery (70)
Which of the following procedures** do you feel comfortable performing independently without supervision?	Chemical peels (27) Soft tissue filler (9) Laser surgery (27)
In which of the following procedures** do you feel inadequately prepared and would benefit from additional training during residency?	Chemical peels (69) Soft tissue filler (81) Laser surgery (69)
How often do you administer botulinum toxin?	Biannual or less (37)
How often do you administer soft tissue fillers?	Biannual or less (61)
How often do you perform chemical peels?	Biannual or less (77)
How often do you perform laser surgery?	Biannual or less (45)
Who is currently performing the majority of cosmetic procedures* (i.e., dermatologists, plastic surgeons, PCPs, PAs, or nurses)?	Dermatologists (70)
Do other providers (plastic surgeons, PCPs, PAs, nurses) receive more training in cosmetic procedures* than you are currently receiving?	Yes (70)
Have your expectations for residency training in cosmetic procedures* been met?	No (58)
If you were provided additional residency training than currently offered, would you be more inclined to perform cosmetic procedures* after residency?	Yes (66)

PCP: primary care physician; PA: physician's assistant
*Chemical peels, soft tissue fillers, botulinum toxin injection, laser surgery
**Chemical peels, soft tissue fillers, laser surgery

cosmetic procedures have not been met, this nationwide survey emphasizes the gap between expectations and current curricula. More than 95 percent of residents feel that a more formal curriculum in cosmetic procedures would benefit residency education, and 66 percent believe that additional training would increase the likelihood of incorporating these procedures into postresidency practice.

DISCUSSION

In addition to meeting the expectations of residents, adapting educational curricula to reflect this subspecialty is also relevant in the context of proposed changes to ACGME procedural case log requirements. Residents can log 15 laser, 10 botulinum toxin, and five soft tissue augmentation treatments as Level 2 participants (either surgeon or observer).[2] The ACGME Review Committee for Dermatology recently considered a proposal to limit logged procedures to Level 1 (surgeon) experiences, thereby requiring residency programs to provide sufficient opportunity for residents to perform cosmetic procedures under faculty supervision.[5] Of note, while the American Board of Dermatology (ABD) requires competency assessments in multiple procedural techniques, laser surgery is the only cosmetic procedure evaluable for a competency review by program directors via the ABD final evaluation.

Any changes in the formal requirements for clinical experience in cosmetic procedures must address the inconsistent presence of cosmetic dermatologists in residency programs. The standardization of cosmetic didactics by the ABD during a resident's first year of training would provide a foundation of knowledge to support improved competency and confidence with graduated procedural responsibilities during the second and third years of residency. Residency programs without faculty who can provide consistent clinical and didactic instruction in cosmetic procedures might need to establish relationships with private practitioners through adjunct clinical faculty positions. Additionally, pharmaceutical and device companies could supply an increased allotment of product for education, which might increase the opportunity for supervised procedures at discounted rates or free of cost. Participation in quality improvement projects, encouraged and measured by the ACGME, could be designed to study and improve education in cosmetic procedures.

CONCLUSION

In summary, there appears to be insufficient didactic and clinical instruction in cosmetic procedures during residency to match practice trends and the expectations of residents. Dermatology residency programs might find it advantageous to adapt to support greater competency and confidence in these procedures.

ACKNOWLEDGMENT

The authors acknowledge Mary Bohannon for her assistance in producing the survey and in obtaining response data.

REFERENCES

1. American Society for Dermatologic Surgery. Skin cancer, cosmetic procedure and patient demographic trends revealed. 17 May 2018. www.asds.net/Skin-Experts/News-Room/Press-Releases/ASDS-Members-Performed-Nearly-12-Million-Treatments-In-2017. 26 Oct 2018.
2. Accreditation Council for Graduate Medical Education. Dermatology, program requirements, and FAQs. https://www.acgme.org/Specialties/Program-Requirements-and-FAQs-and-Applications/pfcatid/3/Dermatology. 26 Oct 2018.
3. Champlain A, Reserva J, Webb K, et al. Cosmetic dermatology training during residency: outcomes of a resident-reported survey. *Dermatol Surg*. 2018;44(9):1216–1219.
4. Group A, Philips R, Kelly E. Cosmetic dermatology training in residency: results of a survey from the residents' perspective. *Dermatol Surg*. 2012;38(12):1975–1980.
5. Stratman E. ACGME update and report. Presented at: Association of Professors of Dermatology Annual Meeting; October 5–6, 2018; Chicago, Illinois. JCAD